



IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1 1. (Previously Presented) A method for generating a spot for use in
2 halftoning, comprising:
3 defining a spot function that combines two functions selected to provide a
4 predetermined spot shape for use in a halftone cell; and
5 scaling the spot function using a parameterized spot radius scaling function that varies
6 according to a value of a first and second spot function ordinate and a shape changing scaling
7 function,
8 wherein the spot function is described by:

9
$$f(x, y) = \frac{1}{2} \left(\cos(\pi x / p_x) + \frac{1}{S(p, r)} \cos(\pi y / p_y) \right)$$

- 10 where x and y are the first and second spot function ordinates, p_x scales ordinate x, p_y scales
11 ordinate y, p is a spot shape parameter for controlling the shape of the spot, $S(p, r)$ is a scaling
12 function, and r is the radius of the spot.

- 1 2. (Previously Presented) The method of claim 1, wherein the two
2 functions allow non-separable changes in spot shape.

- 1 3. (Canceled)

- 1 4. (Canceled)

1 8. (Previously Presented) The printing system of claim 7, wherein the two
2 functions allow non-separable changes in spot shape.

1 9. (Canceled)

1 10. (Canceled)

1 11. (Previously Presented) The printing system of claim 7, wherein the
2 scaling function, $S(p,r)$, is described by:

$$S(p,r)=1+\frac{1}{p_m\sqrt{2\pi}}\exp\left(-\frac{(r/\sqrt{2}-1/2)^2}{2p^2}\right),$$

4 where p_m sets a maximum ellipticity of the spot.

1 12. (Canceled)

1 13. (Previously Presented) The printing system of claim 7, wherein the
2 device is a hardware card disposed between the control unit and the print head.

1 14. (Previously Presented) The printing system of claim 7, wherein the
2 device is a hardware card disposed within the control unit.

1 15-16. (Canceled)

1 17. (Previously Presented) An article of manufacture comprising a program
2 storage medium readable by a computer, the medium tangibly embodying one or more
3 programs of instructions executable by the computer to perform a method for halftoning an
4 image, the method comprising:

5 defining a spot function that combines two functions selected to provide a
6 predetermined spot shape for use in a halftone cell; and

7 scaling the spot function using a parameterized spot radius scaling function that varies
8 according to a value of a first and second spot function ordinate and a shape changing scaling
9 function,

10 wherein the spot function is described by:

$$f(x, y) = \frac{1}{2} \left(\cos(\pi x / p_x) + \frac{1}{S(p, r)} \cos(\pi y / p_y) \right)$$

12 where x and y are the first and second spot function ordinates, p_x scales ordinate x , p_y scales
13 ordinate y , p is a spot shape parameter for controlling the shape of the spot, $S(p,r)$ is a scaling
14 function, and r is the radius of the spot.

1 18. (Previously Presented) The article of manufacture of claim 17, wherein
2 the two functions allow non-separable changes in spot shape.

1 19. (Canceled)

1 20. (Canceled)

